



## Coffee Break Training - Emergency Medical Services

### Evidence-based Change in EMS

No. EMS-2013-3 June 26, 2013

**Learning Objective:** The student shall be able to identify methods to collect evidence for decision-making in Emergency Medical Services.

Research versus data collection versus quality assurance: These are not exclusive activities. In order to make evidence-based decisions that create changes for the improvement of our patient outcomes, actions must be evaluated.

Part of the evaluation should be internal. A thorough quality management program, mandated by many state rules and regulations, is necessary to evaluate the effectiveness of current policies, procedures and protocols. Only through internal data collection can trends of success/failure, improvement/degradation, goals met/missed, etc. be analyzed. Of course, this also requires accurate identification of the question or problem and a plan to gather the data. For example, does the agency collect accurate data on provider airway management? If the agency staffs a dual paramedic ambulance, does the second paramedic securing a patent advanced airway after the first paramedic does not count as a failure or a success for the patient outcome? Or is only the individual skill captured as a failure for one paramedic and success for the other?

Additionally, external data should be evaluated. In many cases, other agencies or similar professions have data that can be applied to the question or problem at hand. For example, the effects of sleep deprivation on prehospital EMS personnel actions have limited scientific data. However, there are several studies on sleep deprivation affecting medical students, interns and resident physicians as well as long-distance truck drivers. Both medical decision-making and driving skills have direct relationships to EMS.

Together, internal quality management data and external research data can provide evidence to assist in decision-making for improved system delivery and long-term patient outcomes.

For more information, please visit the National Fire Academy courses “Emergency Medical Services: Quality Management” (R0158) and “Hot Topics Research in Emergency Medical Services” (R0139) at [www.usfa.fema.gov/nfa](http://www.usfa.fema.gov/nfa).



For archived downloads, go to:

[www.usfa.fema.gov/nfa/coffee-break/](http://www.usfa.fema.gov/nfa/coffee-break/)